

## **APPENDIX D**

### **Results of Surveying Other States**

## APPENDIX D: RESULTS OF SURVEYING OTHER STATES

### OVERVIEW

One component of the ERP Automation Assessment Study was to survey other public sector entities to learn more about their ERP projects. The ERP Project Team surveyed ten public sector entities (a listing is provided in the exhibits that follow). Additional information was collected from seven other public sector entities that did not participate in the survey. The purpose of the survey was to collect information from recent comparable implementations including project scope, size, cost, and “lessons learned”. This information contributed to the Cost Benefit Analysis and Deployment Strategy. The project team developed an interview guide, scheduled phone interviews with the appropriate staff on the ERP projects, and interviewed the ERP project team members.

### SURVEY RESULTS

A number of business drivers were identified for implementing an ERP system. These business drivers included the following:

- ◆ **Unmet Information Needs** - In most cases, states had aging systems that lacked the ability to deliver information to meet business needs in a timely manner.
- ◆ **Legacy System Lacks Flexibility** - Legacy systems required costly and time-consuming system modifications to respond to new laws, rules, and regulations.
- ◆ **Discontinued Technical Support** – Some organizations were concerned about the future loss of technical support from the vendor and the lack of internal resources to maintain aging legacy systems in the future.
- ◆ **Inefficient Business Processes** – States observed that duplicate data entry and manual reconciliation of Financial and Human Resource processes would be significantly reduced as redundant systems are eliminated by an ERP system.
- ◆ **Duplicate Agency Systems** - A proliferation of agency sub-systems to compensate for missing functionality in the old core administrative systems was noted. Many agencies had been moving toward a “best of breed” approach with the potential loss of integration.
- ◆ **Year 2000 Compliance (Y2K)** - Some systems were not designed with the flexibility to accommodate business processing for Y2K. For some, the purchase of an ERP system was the most economical and timely solution to address this issue.

The remainder of this section includes three (3) exhibits that summarize the information collected from the public sector entities that were surveyed. This information includes statistical data, functional modules implemented, and lessons learned.

Exhibit 1, found on page D-6, provides the statistical data for each of the public sector entities that were surveyed. A brief summary of this exhibit follows.

- ◆ **Acquisition and Implementation Costs** - Software acquisition and implementation costs ranged from \$1,333,000 to \$29,000,000. The costs for acquisition and implementation services ranged from \$1,752,000 to \$123,000,000. Reported miscellaneous costs ranged from \$190,000 to \$8,886,546.
- ◆ **Transportation Involvement** - The Department of Transportation participated in six of nine ERP implementations in other states.
- ◆ **Cost Benefit Analysis** - Only one of the entities surveyed performed a Cost Benefit Analysis to support the business case.
- ◆ **Procurement and Funding Strategy** - Most states utilized a fixed fee contract to procure implementation services. Vendor payments were based on completion and approval of deliverables within project phases.
- ◆ **Implementation Teams** - Implementation teams ranged in size from 14 to 450; these numbers included some part-time project staff. Eight of ten entities backfilled some positions for employees who were dedicated full-time to the project team.
- ◆ **Implementation Strategy** - Most entities phased the functionality, phased the agencies, or phased both the functionality and the agencies. In cases where the functionality was phased, Financial/Procurement functionality was usually implemented prior to Human Resources/Payroll functionality.
- ◆ **Number of Employees** - For the states surveyed, the total number of employees ranged from 12,000 to 99,000. These statistics do not include higher education employees.

Exhibit 2 is found on page D-7. It provides a summary of the functional areas included in the ERP implementation for each public sector entity that was surveyed. Nine of ten entities surveyed implemented or plan to implement Financial/Procurement modules. All entities surveyed have implemented or plan to implement some of the Human Resource modules.

Exhibit 3, on page D-8, provides an overview of the most frequently cited “lessons learned” by the public sector entities surveyed. Most entities focused on change management issues. Entities also emphasized project management, planning and training. A review of key “lessons learned” follows:

- ◆ **Change Management**
  - Timely and consistent communication with all participating agencies is essential. Some entities recommended that a liaison be selected from each agency or department and be responsible for communicating information from the agency to the project team and vice versa.
  - In addition, a project web site is very important for effective communication. Frequent meetings should be scheduled for the duration of the project with groups at different levels of the organization to communicate information.

- Executive support, up to and including the Governor, is essential to implementing best business practices throughout the organization.
- All impacted agencies must be actively involved and communicate with the ERP project team.
- ♦ **Implementation**
  - Before implementation, the project team should collect, analyze and cleanse the data from the legacy systems.
  - Most government entities advised against the “big bang” approach. One reason to avoid this approach is lack of resources and time to adequately train staff before deployment.
- ♦ **Planning**
  - Advanced planning for all aspects of the project, including the post go-live” support organization, is critical to the success of the project. As one organization noted, it is important to build a strong vision and back it up with a solid business case. “A plan without a vision is drudgery. A vision without a plan is just a dream.”
- ♦ **Project Management**
  - The project manager must have decision-making authority and must have a clear definition of other key decision authorities for the project.
  - Processes for collecting and resolving issues and for processing change requests should be clearly documented before the project begins.
- ♦ **Software**
  - Steps should be taken to standardize all desktop products. In today’s web based environment emphasis, should be placed on standardizing e-mail and the office suite.
- ♦ **Staffing**
  - The organization should target the “best and brightest” individuals in the organization to staff the project team.
  - Subject matter experts and state technical staff must be committed to the project full-time to avoid delays in meeting the project schedule and to promote project success.
  - Most states backfilled some state positions to reduce the impact of supporting current business functions during the planning and implementation phases of the project. Due to the time commitment of the project team, most states recommend instituting a special compensation plan to reward state employees for the additional effort required to produce a successful project.
- ♦ **Training**
  - Employees must be well trained for their new functional roles in the use of the ERP system.

Most states reported benefits and drawbacks to their new integrated ERP system. With a fully integrated system, global information is available on a timely basis for better planning and control. However, it is difficult to reap all the benefits of integration if all entities within the organization do not participate in the project. Even if all entities participate in the ERP project, there is usually significant resistance to change, making it very difficult to implement best business practices.

In addition, some entities reported that ERP software is not designed to adequately manage some government processes, such as budget development. However, with some of the latest releases of ERP software, these public sector entities have expectations that their specific issues are being addressed. Also, some states noted the challenge of staying current with the latest releases of ERP software.

In summary, most entities have been pleased with their ERP systems and software implementation teams. Changes to the business processes and systems have significantly changed job roles for many employees. Over time, most employees have adjusted to the new environment and appreciated the benefits of an integrated ERP system. The on-line real-time capabilities as well as enhance reporting capabilities of an ERP system have proven to be very beneficial. Efficiencies have been gained from implementing employee and vendor self-service.

## EXHIBIT 1 SURVEY RESULTS BY STATE

Organization	Acquisition & Implementation Cost			TDOT?	Cost Benefit?	Fixed Fee Contract?	Implem. Strategy			Implem. Team		Total Employees
	Software	Services	Other				Fin/ Pur*	HR/ Pay*	Order	Size	Positions Backfilled?	
State of Arkansas	\$4,741,434	\$25,925,000	\$1,974,649	No	No	Yes	A/A	A/A	--	100	No	28,000
State of Connecticut	\$11,000,000	\$88,000,000	\$3,500,000	Yes	No	Yes	P/A	P/A	F	250	Some	55,000
State of Georgia	\$5,822,252	\$30,729,974	\$8,886,546	Yes	No	Yes	A/A	A/A	--	200	Some	?
State of Louisiana	\$4,000,000	\$17,000,000		Yes, Pers	No	No	--	P/A	--	27	Yes	99,000
State of Missouri	\$2,500,000	\$33,100,000		Yes	No	Yes	A/A	A/P	F	100	Some	65,000
State of Montana				No	Yes	Yes	P/A	A/A	**	60	Some	12,000
State of Nevada				No	No	Yes	?	?		100	Some	15,000
State of Pennsylvania	\$29,000,000	\$123,000,000		Yes	No	Yes	A/P	P/A	F	450	Some	83,000
University of TN	\$3,200,000	\$7,100,000		n/a	No	Yes	A/ n/a	A/A		85	Some	25,000
State of Utah	\$1,333,000	\$1,752,000	\$190,000	Yes	No	Yes	n/a	A/A	--	14	No	22,000

Implement. Strategy  
(Functionality/Agencies)  
\* A = all at one time  
P = phased

Order  
\*\* 1 - Budget Dev.  
2 - Asset Mgmt  
3 - HR/Payroll  
4 - Fin./Purch.  
F = Financial First  
H = HR First

## EXHIBIT 2 FUNCTIONAL AREAS IMPLEMENTED BY STATE

Organization	Financial Management														Human Resources/Payroll							Other		
	AM	AP	AR	BD	CA	CM	FL	GA	GL	IN	PJ	PR	PU	TV	BA	ED	LA	PA	PC	PY	RE	TR	WF	WH
State of Arkansas	▲	▲	▲			▲			▲	▲	▲		▲		▲	▲	▲	▲	▲	▲		▲	▲	▲
State of Connecticut	▲	▲	▲					▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
State of Georgia	▲	▲	▲	▲	▲	▲		▲	▲		▲		▲	▲	▲		▲	▲	▲	▲		▲		
State of Louisiana															▲	▲	▲	▲	▲	▲		▲	future	
State of Missouri	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
State of Montana	▲	▲	▲	▲	▲	▲			▲				▲		▲	▲	▲	▲	▲	▲	▲	▲		
State of Nevada	▲	▲							▲		▲		▲	▲				▲						
State of Pennsylvania		▲	▲	▲	▲			▲	▲	▲		▲	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
University of Tennessee	▲	▲	▲	▲	▲	▲		▲	▲		▲		▲	▲	▲		▲	▲	▲	▲		▲		
State of Utah															▲		▲	▲				▲		

### Financial Management

AM Asset Management  
AP Accounts Payable  
AR Accounts Receivable / Cash Receipting  
BD Budget Development  
CA Cost Allocation and Cost Accounting  
CM Cash Management  
FL Fleet Management and Maintenance  
GA Grant Accounting  
GL General Ledger / Budgetary Control  
IN Inventory  
PJ Project Accounting  
PR eProcurement  
PU Purchasing  
TV Travel

### Human Resources

BA Benefits Administration  
ED Training & Employee Development  
LA Leave Accounting  
PA Personnel Administration  
PC Position Control  
PY Payroll Administration  
RE Recruitment & Applicant Tracking  
TR Time Reporting

### EXHIBIT 3

#### LESSONS LEARNED BY STATE/OTHER PUBLIC SECTOR ENTITY

Category	Lessons Learned	State of AK	State of CT	State of GA	State of LA	State of MO	State of MT	State of NV	State of PA	Univ. of Tenn.
Change Management	Control and minimize customization of software	▲	▲	▲	▲	▲	▲	▲	▲	
	Follow best business practices	▲	▲	▲	▲	▲	▲	▲	▲	
	Plan for cultural changes	▲	▲		▲	▲	▲	▲	▲	
	Prepare business users to perform new job functions	▲	▲		▲	▲	▲	▲	▲	
	Support business process re-engineering	▲	▲		▲	▲	▲	▲	▲	
	Support change management	▲	▲	▲	▲	▲	▲	▲	▲	▲
Implementation	Avoid "Big Bang" implementation						▲		▲	
	Cleanse master data and vendor file	▲							▲	
Planning	Plan for post a post go-live support organization	▲	▲		▲		▲		▲	▲
Project Management	Clearly define project scope	▲							▲	
	Empower Project Director(s) to make decisions		▲						▲	
	Prepare a good communication plan			▲		▲	▲		▲	▲
Software	Standardize all desktop products						▲		▲	
Staffing	Select best employees to staff the project team	▲	▲		▲		▲		▲	▲
Training	Provide adequate and timely training for users	▲	▲	▲	▲	▲	▲		▲	
	Provide adequate and timely training for the team	▲	▲	▲	▲	▲	▲		▲	▲